



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

Dirk Kempthorne, Governor
Toni Hardesty, Director

June 9, 2006

Certified Mail No. 7005 1160 0000 1550 4212

Ryan McDermott
General Manager
US Ecology of Idaho, Inc.
10400 Lemley Road
Grand View, ID 83624

RE: Facility ID No. 073-00004, US Ecology of Idaho, Inc., Grand View
Final Tier II Operating Permit and Permit to Construct Letter, T2-040020

Dear Mr. McDermott:

The Department of Environmental Quality (DEQ) is issuing Tier II Operating Permit and Permit to Construct No. T2-040020 to US Ecology of Idaho, Inc. for its Grand View facility in accordance with IDAPA 58.01.01.400 through 406 and 200 through 228, Rules for the Control of Air Pollution in Idaho.

The enclosed permit is effective immediately and is based on the information contained in your permit application. This Tier II operating permit and permit to construct replaces Permit to Construct No. 073-00004, issued July 16, 1997, the terms and conditions of which shall no longer apply. Please note that this permit expires five years after the issuance date.

In accordance with IDAPA 58.01.01.407, DEQ has assessed the emissions for this permit and determined that a Tier II processing fee of \$2,500.00 will be due. A fee invoice will be sent to you from the DEQ fiscal office shortly.

A representative of the Boise Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer, Administrator
Air Quality Division

MB/BR/bf Permit No. T2-040020

Enclosure

c: June Hues, Boise Regional Office
 Bill Rogers, Permit Coordinator
 Marilyn Seymore/Pat Rayne, Air Quality
 Laurie Kral, EPA Region 10
 Joan Lechtenberg, Public Comment
 Dave Sande, Fiscal (Ltr Only)
 Phyllis Heitman (Ltr Only)
 Permit Binder
 Source File
 Reading File (Ltr Only)



**Air Quality
TIER II OPERATING PERMIT
and
PERMIT TO CONSTRUCT**

**State of Idaho
Department of Environmental Quality**

PERMIT No.: T2-040020

FACILITY ID No.: 073-00004

AQCR: 63

CLASS: B

SIC: 4953

ZONE: 11

UTM COORDINATE (km): 560.0, 4768.0

1. PERMITTEE

US Ecology Idaho, Inc.

2. PROJECT

Facility-wide Tier II Operating Permit and Permit to Construct

3. MAILING ADDRESS

10400 Lemley Road

CITY

Grand View

STATE

ID

ZIP

83624

4. FACILITY CONTACT

Ryan McDermott

TITLE

General Manager

TELEPHONE

(208) 834.2275

5. RESPONSIBLE OFFICIAL

Ryan McDermott

TITLE

General Manager

TELEPHONE

(208) 834.2275

6. EXACT PLANT LOCATION

10.5 mile northwest of Grand View on Highway 78, at Lemley Road.

COUNTY

Owyhee

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Hazardous waste treatment, storage, and disposal

8. PERMIT AUTHORITY

This permit to construct and Tier II operating permit is issued according to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.200-228 and IDAPA 58.01.01.400-470, respectively. This permit pertains only to emissions of air contaminants, which are regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit.

Only the terms and conditions pertaining to Tier II operating permit requirements are subject to the expiration date of this permit.

The permit to construct conditions in this permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's (DEQ) technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 of the *Rules for the Control of Air Pollution in Idaho*.

Toni Hardesty

TONI HARDESTY, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED:

June 9, 2006

DATE MODIFIED/REVISED:

DATE EXPIRES:

June 9, 2011

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Acronyms, Units, and Chemical Nomenclatures

AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EUI	Emission Unit Identification
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
NO_x	nitrogen oxides
PM	particulate matter
PM₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PTC	permit to construct
scf	standard cubic feet
SIC	Standard Industrial Classification
T/yr	tons per year
USEII	U.S. Ecology Idaho, Inc.
UTM	Universal Transverse Mercator
VOC	volatile organic compound

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-040020

Permittee:	US Ecology Idaho, Inc.	Facility ID No. 073-00004	Date Issued:	June 9, 2006
Location:	Grand View, Idaho		Date Modified/Revised:	
			Date Expires:	June 9, 2011

1. TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT SCOPE

Purpose

- 1.1 The purpose for this permit is to establish enforceable permit conditions to limit the facility's potential to emit to protect ambient air quality standards.
- 1.2 This Tier II operating permit and permit to construct replaces PTC No. 073-00004, issued July 16, 1997, the terms and conditions of which shall no longer apply.

Regulated Sources

- 1.3 Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2, 3 & 4	I. Containment and Stabilization Building A. Building fugitive emissions	<u>Negative building pressure:</u> maintained by Containment or Stabilization building ventilation baghouses.
3	B. Containment Operations 1. Building ventilation baghouse; EUI ¹ 'General' The General baghouse collects emissions from waste transfer, as well as sorting, crushing, and crushings screening which were not captured by their specific baghouse. 2. Sorting; EUI 'SORT' The 'SORT' baghouse collects emissions from sorting operations. 3. Crushing; EUI 'CRUSH' The 'CRUSH' baghouse collects crushing and crushings screening emissions.	<u>Building ventilation baghouse:</u> Day HP Dust Filter, Model No. 128. Efficiency: 99.5% for PM. <u>Sort floor baghouse:</u> Day HP Dust Filter, Model No. 160 or equivalent. Efficiency: 99.5% for PM. <u>Crush baghouse</u> Day HP Dust Filter, Model No. 128 Efficiency: 99.5% for PM
4	C. Indoor Stabilization Operations: 1. Building ventilation system; EUI 'STAB' The 'STAB' baghouse and HEPA filters collect emissions from all indoor stabilization operations. The baghouse and HEPA are connected in series. 2. Two Indoor Stabilization Additive Silos: the silo baghouses collect emissions during silo filling. Additives are typically Portland cement or lime (58.5% CaO). EUI 'A_SILO' EUI 'L_SILO'	<u>Building ventilation:</u> Donaldson 320HPW8 baghouse + Donaldson Ultra-Lock HEPA. Combined PM efficiency of 99.97%. <u>Additive silo baghouses:</u> both Indoor stabilization additive silos use a Stephens Model No. SV380 baghouse rated at 99.5% efficient for PM.
5	II. Outdoor Stabilization facility A. Waste stabilization: EUI 'OSW' Waste stabilization includes waste addition to the processing bin, clay addition, FeSO ₄ addition, cement addition, and lime addition. B. Three Additive silos: the silo baghouses collect emissions during silo filling. Additives are usually Portland cement or lime (58.5% CaO). EUI 'OSA', EUI 'O_SILO', Additive silo ²	<u>The Waste processing bin lid</u> covers the processing bin during lime and cement addition; rated at 25% efficient for PM. <u>Additive silo baghouses</u> Each silo is equipped with a Mikropul 'Pulsair' baghouse rated at 99.5% efficient for PM.

¹ EUI: Emission Unit Identification, as supplied by USEIL.

² No EUI provided.

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2. FACILITY-WIDE CONDITIONS***Operation and Maintenance Manual Requirements***

2.1 Within 60 days of issuance of this permit, the permittee shall have developed an Operations and Maintenance (O&M) manual for each air pollution control device at this facility based on manufacturer specifications and recommendations. Where available, the manufacturer O&M manual(s) shall be part of the O&M manual developed by the permittee. All O&M manuals shall remain on site at all times and be made available to DEQ representatives upon request. Additionally, for each air pollution control device, a copy of its respective O&M manual shall be posted at the location of the air pollution control device and shall be readily accessible to shift workers. Each O&M manual shall include the following information at a minimum:

- a general description of the air pollution control device
- manufacturer recommended pressure drop operating range
- operating instructions and startup and shutdown procedures
- the operation, maintenance, and repair of the air pollution control device
- routine and periodic maintenance procedures
- upset conditions and corrective action procedures

[PTC Condition]

Maximum Compound Concentration in Waste

2.2 The maximum allowable concentration of any regulated compound contained in any as-received waste shall not exceed the concentrations listed below. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

- Organic Compounds

Organic compound concentrations shall not exceed 500 parts per million.

- Inorganic Compounds and Metals

If concentrations of regulated compounds contained in any as-received waste exceed the facility modeled compound concentrations (weight fraction) listed in Appendix A, then the compound process rate shall not exceed the maximum compound process rate listed in Appendix A. Each shipment of waste exceeding the facility modeled compound concentrations (weight fraction) shall be recorded along with the necessary process rates to comply with the maximum compound process rates. Records specific to higher concentration shipments shall be maintained in monthly reports, and shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]

2.3 Wastes to be direct buried solidified, or micro- and macro-encapsulated, or that are received as a liquid, are not subject to the limitations in Permit Condition 2.2 because the regulated compounds are not made available to ambient air. Further definition of the wastes and waste treatment methodologies applied in this Section is presented below.

- Direct Burial – The method of disposing of wastes that meet Land Disposal Restrictions and do not require processing, handling or treatment.

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- **Solidification** – The method of treating wastes that arrive as liquids and require the addition of clay, lime, or other binding media in order that those wastes be solidified to meet the requirements of Section VI.A.2. of USEI's Part B Permit. As a result, no emissions to air from the waste material will occur.
- **Macro-encapsulation** – The method of treating those wastes meeting the definition of debris (solid material with a particle size >60 mm) in 40 CFR 268.2(g) and defined in 40 CFR 268.45 by encapsulating in an impermeable liner. Clay may also be added inside the liner to fill void space. As a result, no emissions to air from the waste material will occur.
- **Micro-encapsulation** – The method of treating those wastes meeting the definition of debris (solid material with a particle size >60 mm) in 40 CFR 268.2(g) and defined in 40 CFR 268.45 that can be immersed or coated with Portland cement, lime or other pozzolanic material in order to encapsulate the exposed surface of the debris. As a result, no emissions to air from the waste material will occur.
[PTC Condition]

- 2.4 Material not complying with Permit Conditions 2.2 or 2.3 may be processed following the modeling of the effect on ambient air concentration for the waste to show compliance with the applicable regulations. Records documenting material subject to this permit condition shall be maintained in accordance with Permit condition 2.15.

[PTC Condition]

Fugitive Emissions

- 2.5 All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:

- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
- Application, where practical, of asphalt, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
- Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
- Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
- Paving of roadways and their maintenance in a clean condition, where practical.
- Prompt removal of earth or other stored material from streets, where practical.

[PTC Condition]

- 2.6 The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.

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- 2.7 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- 2.8 The permittee shall conduct quarterly facility-wide inspections of potential sources of fugitive emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

Odors

- 2.9 The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.
- 2.10 The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Visible Emissions

- 2.11 The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

[PTC Condition]

- 2.12 The permittee shall conduct quarterly facility-wide inspections of potential sources of visible emissions during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed),

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any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Excess Emissions

- 2.13 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[PTC Condition]

Open Burning

- 2.14 The permittee shall comply with IDAPA 58.01.01.600-616, Rules for Control of Open Burning.

Monitoring and Recordkeeping

- 2.15 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[PTC Condition]

Reports and Certifications

- 2.16 Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, notifications of intent to test, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Boise DEQ Regional Office
1445 North Orchard Street
Boise, ID 83706-2239
Phone: (208)373-0550

Fax: (208) 373-0287

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Fuel-burning Equipment

- 2.17 The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas and 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid.

Sulfur Content

- 2.18 The permittee shall not sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur:
- ASTM Grade 1 fuel oil - 0.3% by weight.
 - ASTM Grade 2 fuel oil - 0.5% by weight.
 - ASTM Grades 4, 5 and 6 fuel oil – 1.75% by weight.
- 2.19 The permittee shall maintain documentation of supplier verification of distillate fuel oil sulfur content on an as-received basis.

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3. CONTAINMENT AND STABILIZATION BUILDING – CONTAINMENT OPERATIONS

3.1 Process Description

The Containment and Stabilization Building is divided into two separate rooms; one room is used for containment operations (sorting, and crushing and screening), and the other room is used for indoor stabilization operations. The rooms are separated by a curtain that allows forklift and backhoe traffic to pass. This section of the permit pertains only to the containment operations room of the building; indoor stabilization operations are addressed in Section 4 of this permit.

Containment operations include sorting, waste transfer, and crushing and screening. PM₁₀ emissions from the following processes are controlled by dedicated baghouses. The baghouses associated with containment (*Sort*, *Crush*, and *General* baghouses) are all located on the roof of the Containment and Stabilization Building. Ground level fans induce the airflow from the respective processes through the respective baghouses. The cleaned air stream is exhausted through separate stacks located outside the building. Each stack is 80 feet in height, or 25.7 feet above the building's roof line.

- **Sort Area.** Sorting separates incoming waste into appropriate treatment streams. PM₁₀ emissions are controlled by the Sort Baghouse. Particulate collection is accomplished with three sort floor containment hoods – one for each sort area.
- **Crushing and Screening.** Crushing reduces waste to appropriate size and screening sorts oversized material back to the crusher for secondary crushing. PM₁₀ emissions are controlled by the Crush Baghouse. Particulate collection is accomplished with a crusher hood.

A third baghouse, the *General* baghouse, acts as a building ventilation system and reduces building fugitive emissions by creating negative pressure in the containment room. The baghouse collects particulate which escaped sorting, crushing, and screening hood collection, as well as particulate generated during waste transfer (see below).

- **Waste Transfer.** Waste transfer from sorting to crushing, indoor stabilization, outdoor stabilization or land filling is accomplished by front end loader or truck, and has no dedicated baghouse. Waste transfer does not have hood collection, or a dedicated baghouse, but relies on the building ventilation baghouse to collect particulate.

3.2 Emission Control Description

**Table 3.1 BUILDING VENTILATION AND CONTAINMENT
OPERATIONS EQUIPMENT SUMMARY**

Emission Units / Processes	Emissions Control Device	Emissions Point
EUI ¹ 'General': building ventilation & waste transfer emissions.	Building ventilation baghouse	'General' stack
EUI 'SORT': waste sorting operations.	Sort area baghouse	'SORT' stack
EUI 'CRUSH': crushing and crushings screening.	Crush baghouse	'CRUSH' stack

¹ EUI: Emission Unit Identification

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Emissions Limits

3.3 Emission Limits

PM₁₀ emissions from the containment and stabilization building associated with containment operations shall not exceed 0.1 tons per any consecutive 12-month period.

[PTC Condition]

Operating Requirements

3.4 Containment Operations (Sorting and Crushing and Screening) Throughput Limits

- Sorting throughput shall not exceed 876,000 tons of waste per any consecutive 12-month period.
- Crushing and screening throughput shall not exceed 438,000 tons of waste per any consecutive 12-month period.

[PTC Condition]

3.5 Pressure Drop Monitoring Device

The permittee shall install, calibrate, maintain, and operate, according to manufacturer's recommendations and specification, a pressure drop monitoring device to measure the pressure drop across the building (*General*) ventilation baghouse, the SORT baghouse, and the CRUSH baghouse.

[PTC Condition]

3.6 Operation of Air Pollution Control Equipment

The permittee shall operate the building ventilation baghouse when conducting containment operations. The permittee shall operate the SORT baghouse when sorting, and shall operate the CRUSH baghouse when crushing and screening. Each of these air pollution control devices shall be operated according to manufacturer's recommendations and specification and in accordance with Permit Condition 2.1 and General Provision 2.

Monitoring and Recordkeeping Requirements

3.7 Throughput Monitoring Requirement

The permittee shall monitor and record the monthly and annual throughputs for the sorting process and the crushing and screening process to demonstrate compliance with Permit Condition 3.4. Annual throughputs shall be determined by summing monthly throughputs over the previous consecutive 12-month period. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]

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3.8 Pressure Drop Monitoring Requirement

The permittee shall monitor and record the pressure drop across the building ventilation baghouse, the SORT baghouse, and the CRUSH baghouse once daily when operating to demonstrate compliance with Permit Condition 3.6. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]

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4. CONTAINMENT AND STABILIZATION BUILDING – INDOOR STABILIZATION**4.1 Process Description**

The Containment and Stabilization Building is divided into two separate rooms; one room is used for containment operations (sorting, and crushing and screening), and the other room is used for indoor stabilization operations. The rooms are separated by a curtain that allows forklift and backhoe traffic to pass. This section of the permit pertains only to the indoor stabilization operations room of the building; containment operations are addressed in Section 3 of this permit.

The indoor stabilization process produces stable products by mixing waste with reagents in either of two mixing tanks capable of holding up to 60 tons of untreated waste each. Common reagents are cement, lime, ferrous sulfate (FeSO_4), and clay.

Waste arrives either via front end loader from the containment operations, or by truck. Mixing is accomplished in the mixing tanks with a backhoe while water sprays suppress dust. Mixed products are loaded into trucks and moved to land disposal.

Particulate emissions are controlled with a hood collector above each mixing bin, retractable curtains used during bin filling, and water spray used during reagent mixing. Collected particulate is ducted outside to the building ventilation baghouse in series with a HEPA filter. The HEPA filter vents to the ground level fan, and is then exhausted through the 100 foot (STAB) stack, 45.7 feet above the building's roofline.

The reagents lime and cement are kept in silos; each silo has a baghouse to control emissions during silo filling. Clay, ferrous sulfate, and other reagents are added in bulk.

4.2 Emission Control Description**Table 4.1 INDOOR STABILIZATION OPERATIONS EQUIPMENT SUMMARY**

Emission Units / Processes	Emissions Control Device	Emissions Point
EUI ¹ 'STAB': building ventilation & all stabilization emissions.	Building ventilation baghouse in series with a HEPA filter.	'STAB' stack
EUI 'A_SILO': additive silo.	Additive silo baghouse	'A_SILO' stack
EUI 'L_SILO': lime silo.	Lime silo baghouse	'L_SILO' stack

¹ EUI: Emission Unit Identification***Emissions Limits*****4.3 Emission Limits**

PM_{10} emissions from the containment and stabilization building associated with indoor stabilization operations shall not exceed 0.4 tons per any consecutive 12-month period.

[PTC Condition]

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Operating Requirements**4.4 Indoor Stabilization (Waste Mixed with Reagents) Throughput Limits**

- Waste throughput to the indoor stabilization process shall not exceed 2,628,000 tons per any consecutive 12-month period.
- Reagent throughput to the indoor stabilization process shall not exceed 438,000 tons per any consecutive 12-month period. Reagent shall include, but not be limited to, cement, lime, ferrous sulfate (FeSO_4), and clay.

[PTC Condition]**4.5 Pressure Drop Monitoring Device**

The permittee shall install, calibrate, maintain, and operate, according to manufacturer's recommendations and specifications, a pressure drop monitoring device to measure the pressure drop across the building ventilation baghouse, the HEPA filter, the A_SILO baghouse and the L_SILO baghouse while operating.

[PTC Condition]**4.6 Operation of Air Pollution Control Equipment**

When conducting stabilization operations, the permittee shall operate the building ventilation baghouse and HEPA filter. Silo baghouses shall be operated during silo filling operations. Each of these air pollution control devices shall be operated according to manufacturer's recommendations and specification and in accordance with Permit Condition 2.1 and General Provision 2.

Monitoring and Recordkeeping Requirements**4.7 Throughput Monitoring Requirement**

The permittee shall monitor and record the monthly and annual throughputs for the indoor stabilization operations to demonstrate compliance with Permit Condition 4.4. Annual throughputs shall be determined by summing monthly throughputs over the previous consecutive 12-month period. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]**4.8 Pressure Drop Monitoring Requirement**

The permittee shall monitor and record the pressure drop across the building ventilation baghouse, the HEPA filter, the A_SILO baghouse and the L_SILO baghouse once daily when operating to demonstrate compliance with Permit Condition 4.6. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-040020

Permittee:	US Ecology Idaho, Inc.	Facility ID No. 073-00004	Date Issued:	June 9, 2006
Location:	Grand View, Idaho		Date Modified/Revised:	
			Date Expires:	June 9, 2011

5. OUTDOOR STABILIZATION OPERATIONS**5.1 Process Description**

Outdoor stabilization operations produce stable products by mixing with reagents in either of two mixing bins capable of holding up to 30 tons of untreated waste each. Waste arrives by truck and is dumped into a mixing bin. A steel plate acts as a waste bin lid during cement or lime addition. All other reagents are added in bulk; water is added manually. Mixing is accomplished with a backhoe, then the mixed products are moved to land disposal.

Common reagents are cement, lime, ferrous sulfate (FeSO_4), and clay. The reagents lime and cement are kept in silos; each silo has a baghouse to control emissions during silo filling.

5.2 Emission Control Description**Table 5.1 OUTDOOR STABILIZATION OPERATIONS EMISSION UNITS**

Emission Units / Processes	Emissions Control Device	Emissions Point
EUI 'OSW': waste mixing bin with cement, lime, and other reagent addition.	A bin lid, or steel plate, which covers the waste bin during cement and lime addition.	'OSW' mixing bin.
EUI 'OSA': additive silo.	Additive silo baghouse	'OSA' stack.
EUI 'O SILO': lime silo.	Lime silo baghouse	'O SILO' stack.
Additive silo ² .	Additive silo baghouse	Additive silo stack.

¹ EUI: Emission Unit Identification

² No EUI provided.

Emissions Limits**5.3 Emission Limits**

PM₁₀ emissions from outdoor stabilization shall not exceed the following per any consecutive 12-month period:

- Additive silos: 0.4 tons per year combined.

[PTC Condition]

Operating Requirements**5.4 Outdoor Stabilization Throughput Limits**

- Waste throughput to the outdoor stabilization operations shall not exceed 2,365,200 tons of waste per any consecutive 12 month period.
- Combined reagent throughput for the three outdoor stabilization silos shall not exceed 438,000 tons of reagent per year.

[PTC Condition]

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Location:	Grand View, Idaho		Date Modified/Revised:	
			Date Expires:	June 9, 2011

5.5 Pressure Drop Monitoring Device

The permittee shall install, calibrate, maintain, and operate, according to manufacturer's recommendations and specification, a pressure drop monitoring device to measure the pressure drop across the each of the additive silo baghouses while operating.

[PTC Condition]

5.6 Operation of Air Pollution Control Equipment

When conducting outdoor stabilization silo filling operations, the permittee shall operate the respective silo baghouse. Each of these air pollution control devices shall be operated according to manufacturer's recommendations and specification and in accordance with Permit Condition 2.1 and General Provision 2.

Monitoring and Recordkeeping Requirements**5.7 Monitoring Requirement**

The permittee shall monitor and record the monthly and annual throughputs for the outdoor stabilization operations to demonstrate compliance with Permit Condition 5.4. Annual throughputs shall be determined by summing monthly throughputs over the previous consecutive 12-month period. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]

5.8 Pressure Drop Monitoring Requirement

The permittee shall monitor and record the pressure drop across the A_SILO baghouse and the L_SILO baghouse once daily when operating to demonstrate compliance with Permit Condition 5.6. Records demonstrating compliance with this permit condition shall be maintained in accordance with Permit Condition 2.15.

[PTC Condition]

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-040020

Permittee:	US Ecology Idaho, Inc.	Facility ID No. 073-00004	Date Issued:	June 9, 2006
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			Date Expires:	June 9, 2011

6. PERMIT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
 - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211.01 and 211.03:
 - A notification of the date of initiation of construction, within five working days after occurrence;
 - A notification of the date of completion/cessation of construction, within five working days after occurrence;
 - A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;
 - A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
 - A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date
6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-040020

Permittee:	US Ecology Idaho, Inc.	Facility ID No. 073-00004	Date Issued:	June 9, 2006
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All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

Appendix A

Modeled Compound Concentrations and Allowable Compound Process Rates

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US Ecology Idaho

Grand View, ID

COMPOUND MODELED CONCENTRATIONS AND MAXIMUM COMPOUND PROCESS RATE FOR WASTES WITH HIGHER CONCENTRATIONS

Compound <i>i</i>	Compound weight fraction, w_i	Sorting			Waste transfer, crushing, or screening			Indoor stabilization			Outdoor stabilization		
		Process rate, Q_p (T/hr)	Maximum compound process rate, Q_i (lb/hr)	Maximum compound process rate, Q_i (T/hr)	Process rate, Q_p (T/hr)	Maximum compound process rate, Q_i (lb/hr)	Maximum compound process rate, Q_i (T/hr)	Process rate, Q_p (T/hr)	Maximum compound process rate, Q_i (lb/hr)	Maximum compound process rate, Q_i (T/hr)	Process rate, Q_p (T/hr)	Maximum compound process rate, Q_i (lb/hr)	Maximum compound process rate, Q_i (T/hr)
Aluminum	0.270	100	54,000	27.00	50	27,000	13.50	300	162,000	81.00	270	145,800	72.90
Antimony	0.130		26,000	13.00		13,000	6.50		78,000	39.00		70,200	35.10
Arsenic	0.0097		1,940	0.97		970	0.49		5,820	2.91		5,238	2.62
Asbestos	1.00E-08		0.00	1.00E-06		0.00	5.00E-07		0.01	3.00E-06		0.01	2.70E-06
Barium	0.130		26,000	13.00		13,000	6.50		78,000	39.00		70,200	35.10
Beryllium	8.00E-05		16	0.01		8	0.00		48	0.02		43	0.02
Cadmium	0.023		4,600	2.30		2,300	1.15		13,800	6.90		12,420	6.21
Chromium	0.130		26,000	13.00		13,000	6.50		78,000	39.00		70,200	35.10
Copper	0.270		54,000	27.00		27,000	13.50		162,000	81.00		145,800	72.90
Cyanides	0.270		54,000	27.00		27,000	13.50		162,000	81.00		145,800	72.90
Lead	0.195		39,000	19.50		19,500	9.75		117,000	58.50		105,300	52.65
Manganese	0.270		54,000	27.00		27,000	13.50		162,000	81.00		145,800	72.90
Mercury	0.004		800	0.40		400	0.20		2,400	1.20		2,160	1.08
Nickel	0.175		35,000	17.50		17,500	8.75		105,000	52.50		94,500	47.25
Selenium	0.050		10,000	5.00		5,000	2.50		30,000	15.00		27,000	13.50
Silver	0.004		800	0.40		400	0.20		2,400	1.20		2,160	1.08
Thallium	0.028		5,600	2.80		2,800	1.40		16,800	8.40		15,120	7.56
Vanadium	0.012		2,400	1.20		1,200	0.60		7,200	3.60		6,480	3.24
Zinc	0.284		56,800	28.40		28,400	14.20		170,400	85.20		153,360	76.68

Notes:

The compound weight fraction, w_i , is the concentration at which facility emissions were estimated and air dispersion modeled.

The process rate, Q_p , is the maximum capacity or permitted maximum process rate for the treatment process or stage. The process rate was used in facility emission estimates and air dispersion modeling.

The maximum compound process rate, Q_i , is the maximum rate allowed for that contaminant to pass through the process. Q_i is the product of the compound weight fraction and the process rate:

$$Q_i = w_i \cdot Q_p$$

The maximum compound process rate is not the maximum waste process rate, but the maximum rate for that compound, at the as-received concentration, to pass through that process. The waste process rate will depend on the compound concentration.

Appendix B

Facility Throughput Limit Summary

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PROCESS THROUGHPUT LIMITS SUMMARY

Process	Contributing Processes	Maximum Equipment Capacity	Throughput Limit
I. CONTAINMENT AND STABILIZATION BUILDING			
A. Containment (debris handling)			
	Sorting	100 T/hr	876,000 T/yr
	Crushing & crushings screening	50 T/hr	438,000 T/yr
B. Indoor stabilization			
	Waste stabilization	300 T/hr	2,628,000 T/yr
II. OUTDOOR STABILIZATION PROCESS			
	Waste stabilization	270 T/hr	2,365,200 T/yr
III. SILO FILLING/LOADING	ALL SILOS TOTAL:	100 T/hr	876,000 T/yr
	Indoor stabilization silos total	50 T/hr	438,000 T/yr
	Outdoor stabilization silos total	50 T/hr	438,000 T/yr